

**REMARKS**

Applicants respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 2 and 3 are requested to be cancelled without prejudice.

Claims 1, 4, 5, and 6 are currently being amended. No new matter is added.

**Objections to the Specification**

On page 2 of the Office Action the Examiner stated that an abstract on a separate sheet is required. With this filing the Applicants submit a new Abstract page, on a separate sheet.

**Claim Rejections 35 U.S.C. § 102**

On page 2 of the Office Action, the Examiner rejected Claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,127,922 to Roddy et al. ("Roddy").

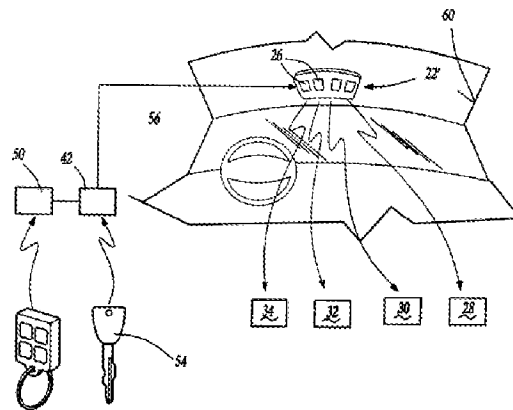
The Examiner has provided no explanation or support for his 102(b) rejection. In the section of the Office Action explaining the Examiner's 103 rejection, the Examiner acknowledges that Roddy "is silent on teaching the carrier signal includes variable codes." Accordingly, because amended Claim 1 recites a method comprising, among other steps, "generating a plurality of variable code messages using the variable code characteristics," Roddy cannot anticipate Claim 1. The Applicants respectfully submit that independent Claim 1 is patentable over Roddy.

**Claim Rejections 35 U.S.C. § 103**

On page 3 of the Office Action, the Examiner rejected Claims 1-7 and 21-27 as being obvious over Roddy in view of U.S. Pat. No. 5,563,600 to Miyake ("Miyake") under 35 U.S.C. § 103(a).

Independent Claim 1 has been amended to recite a method comprising, among other steps, "**interleaving the plurality of variable code messages** to create interleaved data."

Neither Roddy nor Miyake, nor any proper combination, disclose, teach, or suggest “interleaving the plurality of variable code messages to create interleaved data.” A word search reveals that none of “interleave,” “interleaving,” or “mix” are contained in Roddy or Miyake. Furthermore, Applicants respectfully submit that it would not have been obvious to interleave a plurality of variable code messages in light of the disclosures of Roddy and/or Miyake. In Fig. 2 of Roddy (reproduced below), four buttons 26 and four remote devices 28-34 are shown. Roddy does not teach the near-in-time or simultaneous transmission of a plurality of variable code messages. Accordingly, Roddy would not and does not teach any interleaving of multiple variable code messages.



Miyake teaches a data transmission system wherein “[e]ach time the transmitting unit transmits data, a first code updating section changes a variable code storage in a memory in the transmitting unit by predetermined shift processing to form a new variable code, and replaces the preceding variable code with the new variable code” (Miyake at Abstract). This teaching of Miyake indicates that Miyake is a sequential system that calculates and transmits one variable code at a time. Miyake’s sequential and singular nature is further taught by the illustration of Miyake’s Fig. 3 (reproduced to the right). Accordingly, Miyake would not and does not teach interleaving of multiple variable code messages.

FIG. 3

TRANSMISSION TIMES	VARIABLE CODE OF TRANSMITTING UNIT 1
1ST TIME	1 0 1 1 0 0 0 1
2ND TIME	0 1 0 1 1 0 0 0
3RD TIME	1 0 1 0 1 1 0 0
4TH TIME	1 1 0 1 0 1 1 0
5TH TIME	0 1 1 0 1 0 1 1
6TH TIME	0 0 1 1 0 1 0 1
7TH TIME	1 0 0 1 1 0 1 0
8TH TIME	0 1 0 0 1 1 0 1

Because no proper combination of Roddy and Miyake disclose, teach, or suggest the method of Claim 1, the Applicants respectfully submit that Claim 1 is patentable over Roddy and Miyake.

Claim 21 recites “a method for training a trainable RF transmitter in a vehicle to transmit variable code signals used to actuate remote devices” comprising, in addition to other steps, “identifying a remote device to be actuated from the plurality of different remote devices based on the received inputs” and “generating an RF carrier signal having variable code characteristics of the identified remote device.” The device is **trained** to transmit an RF carrier signal having particular variable code characteristics **based on identifying a remote device using received user inputs**. Neither Roddy nor Miyake disclose any particular steps for training a transmitter, much less disclose the “method for training a trainable RF transmitter in a vehicle to transmit variable code signals used to actuate remote devices” of Claim 21. Accordingly, Applicants respectfully submit that Claim 21 is patentable over Roddy and Miyake. Further, Applicants respectfully submit that the Examiner has not explained his rejection with respect to the elements and limitations of Claim 21 – the language used in the Examiner’s rejections seems to relate only to Claims 1-7. Accordingly, the Applicants further submit that the Examiner has failed to present a *prima facie* case of obviousness with respect to Claims 21-27. For example, the Examiner’s remarks are absolutely silent on the feedback activity and related training steps of dependent Claim 22. Applicants respectfully request that independent Claim 21 and dependent Claims 22-27 be allowed. If the Examiner maintains the rejection of dependent Claims 21-27, Applicants respectfully request for the Examiner’s reasons to be articulated with particularity.

On page 3 of the Office Action the Examiner rejected Claims 8-20 as being obvious over Roddy in view of U.S. Pat. No. 6,377,173 to Desai (“Desai”) and further in view of Miyake under 35 U.S.C. § 103(a). The Examiner stated:

Regarding claims 8-20, Roddy et al. teaches a method of actuating a remote device, the method comprising:

initiating an operating sequence to actuate the remote device by pressing the switches (col. 1 lines 59-62);  
generating a plurality of RF carrier signal, each RF carrier signal is associated with a different remote device (col. 1 line 66-col. 2 line 4);  
transmitting the plurality of RF carrier signals to the receiver of the remote device in order to remotely actuate the remote device (col. 2 lines 39-50). It is the examiner's position the codes can only be transmitted sequentially or simultaneously and therefore represent an obvious means of transmitting the control code to the remote devices. Roddy et al. is silent on teaching the carrier signal include variable code and the initiating of the training sequence. Miyake in an analogous art teaches the use of variable codes (col. 3 lines 36-40). Dsai in an analogous art teaches initiating a learning sequence and storing the learnt code in the memory of the transmitter (col. 2 lines 22-44).  
It would have been obvious to one of ordinary skill in the art to modify the system of Roddy et al. as disclosed by Miyake because this improves the security of the system by preventing the unauthorized learning of control code.

The Applicants respectfully traverse the Examiner's rejections of Claims 8-20 for the reason that the Examiner has failed to present a *prima facie* case of obviousness. The language used in the Examiner's rejection of Claims 8-20 tracks the claim language of Claim 1 – not independent Claims 8, 15, or 23. The Examiner has not addressed the language of independent Claims 8, 15, or 23 and, accordingly, has not presented a *prima facie* case of obviousness.

Furthermore, Roddy, Desai, and Miyake do not disclose, teach, or suggest the systems or methods of Claims 8, 15, or 23.

With respect to independent Claim 8, no proper combination of Roddy, Desai, and Miyake disclose, teach, or suggest “a method for training a trainable RF transmitter in a vehicle to transmit variable code signals” comprising, among other steps, “repeating the generating and transmitting steps for the variable code characteristics of each remote device in the plurality of different remote devices until feedback is received from a user that the remote device is activated.” Neither Roddy nor Miyake disclose the specifics of a transmitter training activity. In

Desai, a key fob is trained by being transmitted an exact code learned by a vehicle transmitter (col. 3, lines 35-43). Desai's vehicle transmitter is trained by scanning for and analyzing transmissions received from a garage door opener (col. 3, lines 6-34). There is no disclosure of "repeating the generating and transmitting steps for the variable code characteristics of each remote device in the plurality of different remote devices until feedback is received from a user that the remote device is activated." Accordingly, Roddy, Desai, and Miyake do not teach the method of Claim 8. Therefore, independent Claim 8 and its dependent claims are patentable over any proper combination of Roddy, Desai, and Miyake.

With respect to independent Claim 15, no proper combination of Roddy, Desai, and Miyake disclose, teach, or suggest a "method for training a trainable RF transmitter in a vehicle to transmit variable code signals" comprising, among other steps, "identifying a remote device to be actuated from the plurality of different remote devices based on the received inputs" and "associating the identified remote device with a user input device of the trainable transmitter for subsequent transmission of a variable code signal having variable code characteristics of the identified remote device to actuate the identified remote device." Neither Roddy nor Miyake disclose the specifics of a transmitter training activity. Desai's training does not utilize user input to identify a remote device. Accordingly, Roddy, Desai, and Miyake do not teach the method of Claim 15. Therefore, independent Claim 15 and its dependent claims are patentable over any proper combination of Roddy, Desai, and Miyake.

With respect to independent Claim 23, no proper combination of Roddy, Desai, and Miyake disclose, teach, or suggest a "trainable transmitter in a vehicle for transmitting variable code signals" comprising, among other elements, "a control circuit coupled to the user input device and the memory and configured to receive the inputs from the user input device, to identify a remote device from the plurality of different remote devices based on the received inputs and to associate the identified remote device with the user input device for subsequent transmission of a variable code signal having variable code characteristics of the identified remote device." Neither Roddy nor Miyake disclose the specifics of a transmitter training

activity. Desai's training does not utilize user input to identify a remote device. Accordingly, Roddy, Desai, and Miyake do not teach the method of Claim 23. Therefore, independent Claim 23 and its dependent claims are patentable over any proper combination of Roddy, Desai, and Miyake.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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